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HIGHLIGHTS IN THIS ISSUE:

Aging in Place: Facilitating Choice and Independence

Highlights

- A combination of demographic and economic shifts is creating a large and growing need for affordable and age-appropriate housing opportunities.
- Most seniors would prefer to age in place; home modifications are critical to this process, but the costs can be prohibitive.
- Many organizations are using housing as a platform to provide supportive services that adapt to the needs of seniors, allowing them to remain at home and continue to engage with their communities.

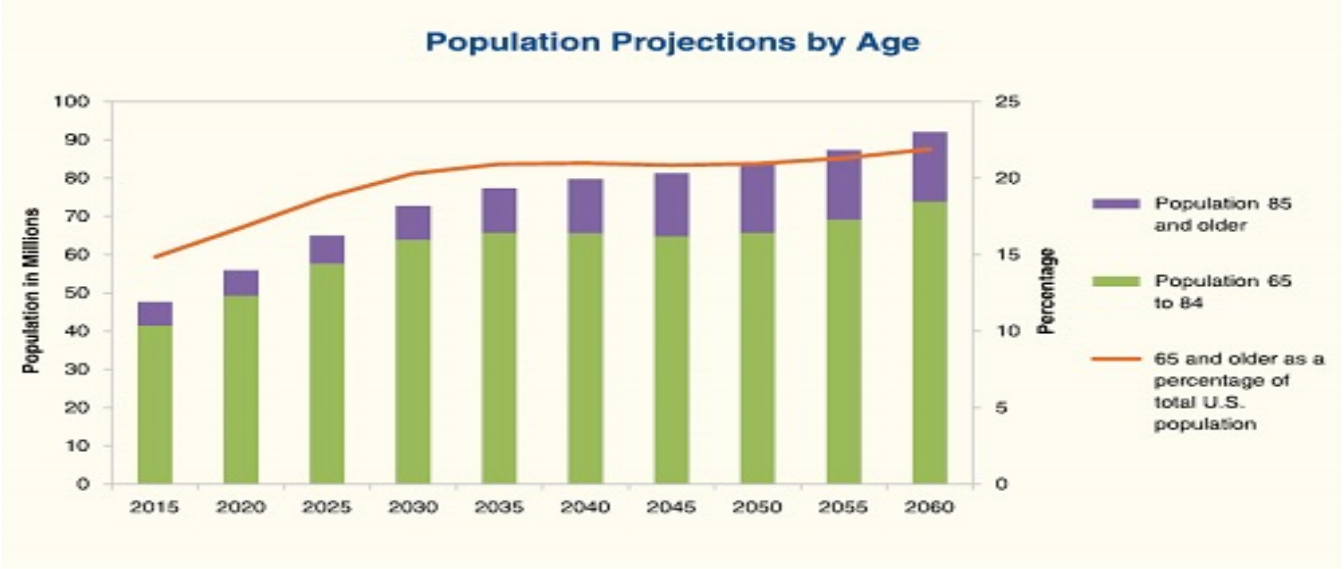
In the coming decades, increasing life expectancy, a declining birth rate, and the aging of the baby boom generation will dramatically increase the number and proportion of the U.S. population over the age of 65. This aging of the population presents a number of challenges and unanswered questions, including where people will live and how they will obtain the support and care they will need as they age while retaining as much independence as possible.

Most seniors indicate that they would prefer to age in place, either staying in their current home or choosing from a range of affordable, age-appropriate housing options within their community. A 2010 AARP survey found that 88 percent of respondents over age 65 wanted to remain in their homes for as long as possible, and 92 percent said they wanted to remain in their communities.[1] To make these options viable, we must adapt homes and communities to meet the changing needs of aging residents, make available affordable housing options suitable for aging residents, and connect seniors to the services they need in the places that they live.

A combination of public policies, public and private strategic initiatives, and marketplace developments seek to meet the health and housing needs of the rising senior population by facilitating aging in place and by using housing as a platform for accessing medical and nonmedical services.[2]

Demographics and Economic Consequences

Source: U.S. Census Bureau, Population Division. 2012. “Table 12. Projections of the Population by Age and Sex for the United States: 2015 to 2060 (NP2012-T12).”



Demographers project that by 2040, the U.S. population aged 65 and older will double to 80 million and their share of the total population will rise from 13 to 20 percent.[3] Driving this fundamental demographic shift is a confluence of factors. First, as the baby boom generation (those born between 1946 and 1964) ages, the growth rate of the portion of the U.S. population over age 65 will accelerate significantly. Experts are quick to point out, however, that the aging of the population is not “all about the baby boom.” Rather, rising life expectancy coupled with a reduced birth rate is driving a long-term change in the age composition of the U.S. population.[4]

The U.S. Census Bureau forecasts continuing increases in life expectancy, from 79.5 years for a baby born in 2015 to 84.8 years for one born in 2060 (compared with 68 years for a baby born in 1950).[5] In addition, a National Research Council report projects that the average years of life remaining for males who reach age 65 will rise from 17.5 years in 2010 to 22.2 years in 2050; for females, these numbers will rise from 19.9 years in 2010 to 24.1 years in 2050.[6] Considerable debate exists, however, over how to project life expectancy and years remaining, considering the uncertain implications of developing trends such as the rise in obesity rates.[7]

In addition to increasing life expectancy, researchers have explored the concept of “compression of morbidity,” meaning that people can live actively and largely free of disease and disability until shortly before death.[8] Although the topic is still the subject of debate, most research suggests that a compression of morbidity occurred in the 1980s and 1990s that has since leveled off.[9] As with life expectancy, it is unclear how to project compression of morbidity. Some research suggests that, compared with the cohort that preceded them, baby boomers are in poorer physical and mental health as they enter retirement and therefore will have higher rates of disability as they age.[10] Exactly how people will live their lengthened lives — with compressed or extended morbidity — has a significant effect on their ability to age in place.[11]

Other demographic influences will shape the dynamics of aging in place in ways that are not yet fully understood. Experts project increasing ethnic diversity in the older population. The share of the population aged 65 and older who identify as Hispanic, for example, is expected to increase from 7 percent in 2010 to 20 percent by 2050.[12] Such diversity may add to the challenges of aging in place because ethnic and racial minorities may have different needs, preferences, or understandings regarding issues such as death or dementia.[13] Growth in the populations of ethnic and racial minorities that, because of socioeconomic differences, are more likely to encounter barriers to services, have a higher prevalence of disability, and have less wealth than whites of the

same age will also shape the challenges of aging in place in the future.[14] According to a recent study by the Institute on Assets and Social Policy at Brandeis University, 76 percent of African American and 85 percent of Latino seniors "do not have sufficient financial resources to meet projected lifetime expenses."[15]

Although the financial circumstances of these African American and Latino seniors are especially insecure, the Center for Retirement Research's National Retirement Risk Index predicts that 53 percent of all working households are "'at risk' of being unable to maintain their pre-retirement standard of living in retirement.[16] Stagnant incomes and unstable sources of wealth underlie this financial insecurity. Using 2007 dollars, the median income of people aged 45 to 54 rose only marginally between 1989 and 2007, from $62,100 to $64,200. Because these households hold most of their savings in home equity, their net worth is subject to the volatility of local and national housing markets.[17]

Low incomes contribute to the financial insecurity of older households. In 2011, the median income of households with at least one person over age 65 was $33,118, only 60 percent of the median income of younger households.[18] Much of this income is devoted to health care and housing. In 2010, for example, households enrolled in Medicare devoted nearly 15 percent of their annual spending to health care-related expenditures.[19] And in 2009, 48.1 percent of homeowners with a mortgage and 58.6 percent of renters aged 65 and older spent 30 percent or more of their income on housing and utilities.[20] These factors pressure the budgets of many older households and are particularly challenging for those with the lowest incomes, including the 8.7 percent of people aged 65 and older who were living below the federal poverty level in 2011.[21]

These demographic changes and characteristics will have wide-ranging implications for society and policy. The aging population will strain the capacity of government programs that support seniors (and, by extension, federal, state, and local budgets) and will increase demand for affordable and age-appropriate housing. At the federal level, the portion of the budget devoted to Social Security, Medicare, Medicaid, and interest payments on the federal debt will increase from 44.4 percent in 2010 to a projected 61.8 percent in 2020.[22] This spending increase will likely constrict funding for other federal programs, including those that support housing for the low-income elderly. State and local governments will also face heightened demand for services for older residents. Compounding these problems, the changing age structure will mean that fewer workers will support the growing number of retirees. Although older people may work longer in the future, according to current projections, only 3 potential workers (those aged 15 to 64) will exist for every 1 retiree (aged 65 and older) in 2050 compared with 5.2 in 2010 and 8 in 1950.[23]

State and federal governments will be especially burdened by the expanding demand for Medicaid-funded services. Long-term care is a matter of particular concern for state policymakers because it constitutes nearly one-third of all Medicaid spending.[24] Although it constitutes a decreasing share of total expenditures, institutional care continues to account for more than half of Medicaid expenditures for long-term care services.[25] Helping seniors delay or avoid institutionalization by facilitating aging in place has the potential to significantly reduce public spending on long-term care. Kaye, Harrington, and LaPlante estimate that supporting a resident in a nursing home costs five times more than in a community setting.[26] Critical to unlocking this potential savings, then, is meeting the housing and health needs of seniors in their current homes and communities.

Aging in Place

The overwhelming majority of older adults prefer to age in place, remaining in their current homes or communities. Most seniors — 93 percent of Medicare enrollees aged 65 and older in 2009 — are already aging in place in traditional communities.[27] But as Robyn Stone, executive director of the LeadingAge Center for Applied Research, puts it, "Most people are doing that until they aren't doing it… it's only when they reach either a crisis or a change in their condition or functional status or in, many times, their family support" that they can no longer remain in their homes.[28] Such a crisis or change often happens after age 85. In 2009, only 7 percent of Medicare enrollees between the ages of 75 and 84 resided in long-term care facilities or community housing with

services compared with 22 percent of those aged 85 and older.[29] The aging-in-place initiatives that successfully keep seniors from entering institutional long-term care facilities will likely be those that target this most vulnerable and high-need group.

In tension with both the strong desire to age in place and the reality that many already do so, many seniors feel that their current homes are not well suited for aging. Slightly less than half of the respondents to an AARP/Roper Public Affairs and Media group of NOP World poll reported that their home would not fully meet their physical needs as they age.[30] A home environment that does not meet physical needs — one that lacks a bathroom and bedroom on the first floor, for example — is just one of several barriers to aging in place. Community features, housing affordability, and accessibility of services all contribute to the ability of seniors to successfully age in their current homes and neighborhoods.[31] Several current initiatives aim to improve home and community environments that are ill-suited for aging residents as well as increase the range of affordable housing options. To the extent that these efforts can succeed, housing can be a platform for accessing needed medical and other services that facilitate aging in place.

Home Modification

Home environments that do not meet the changing needs of aging residents can prevent successful aging in place. “In houses,” says Jon Pynoos of the University of Southern California, “we are still stuck with the old models that will not easily accommodate to the changes that can accompany getting older.”[32] In a national AARP survey, 23 percent of respondents aged 45 and older reported that someone in their household was very or somewhat likely to have difficulty getting around their home in the future.[33] Various modifications can make it easier for aging residents to navigate through and live in their homes, including brighter lighting, handrails, stair lifts, and accessible workspaces. New technologies are also being harnessed to help people age in their homes. A project developed at the University of Missouri, for example, helps caregivers monitor seniors in their homes using sensors to detect falls and other emergency situations and to track changes in functional ability. The sensor system, which includes monitoring of bathing and cooking activity as well as time spent in bed, has been tested in a community-based setting and is being developed for in-home use.[34]

Simple modifications such as the installation of a handrail can make homes more aging-friendly for residents like Carol Glover, pictured here. Glover participated in the Community Aging in Place—Advancing Better Living for Elders (CAPABLE) pilot conducted by researchers at the Johns Hopkins School of Nursing, which tested an intervention that combined occupational therapy, nursing, and handyman visits.
Photo courtesy: Chris Hartlove

These home modifications can range in cost from a few dollars for a brighter light bulb to thousands of dollars for significant remodeling.[35] The National Association of Home Builders (NAHB) reports that 80 percent of aging-related home modifications are paid for out of pocket — a significant obstacle to aging in place for the poorest elderly, who both have the highest levels of disability and tend to live in older housing stock.[36] Some form of

public assistance may be necessary to support modifications for this high-need population. The U.S. Department of Energy's Weatherization Assistance Program, which makes homes more energy efficient to reduce utility costs for low-income families, could be of help to seniors as well as serve as a model for home modification programs that adapt housing for the low-income elderly.[37]

A more cost-effective (although long-term) solution for promoting aging-friendly housing is to ensure that new construction includes accessible features and is designed with future modifications in mind, such as blocking for future railings and grab bars or stacking closets for a future elevator. Two design standards — visitable and universal — promote accessibility and provide benefits to users of all ages. On the lower end of the spectrum, visitability creates a standard of accessibility for disabled visitors, including zero-step entryways, wide doorways, and a first-floor bathroom. Universal design is a higher standard that would also include, for example, having a bedroom on the first floor. These design standards already incorporate many aging-friendly modifications and provide greater ease of access and use to people of any age and ability.[38]

A handful of local jurisdictions, including Atlanta and Austin, require visitability in all publicly funded homes. Other jurisdictions, such as Pima County, Arizona, require visitability in all publicly (and at least some privately) funded homes. Generally, however, visitability and universal design are voluntary standards, although some jurisdictions encourage their use through public incentive programs, such as the tax credits offered by Georgia, Virginia, and Pennsylvania.[39] At the federal level, Green and Painter suggest that universal design could be required for the Section 202 Supportive Housing for the Elderly program and other HUD programs.[40]

To promote the adoption of accessible design principles in the private market, AARP and NAHB created a Certified Aging-in-Place Specialist program that trains and certifies housing professionals in aging-friendly design, and the Andrus Gerontology Center at the University of Southern California offers an Executive Certificate in Home Modification.[41] Pynoos notes that adoption of universal design "has a ways to go," but could become more commonplace "once consumers and builders understand that it is not really any more expensive in the long run and can look attractive. Moreover, it helps families with young children as well as older people, making everyone's lives easier."[42] Whether they are accomplished through retrofitting older homes or designing accessible new homes, aging-friendly modifications can adapt to people's changing needs, allowing them to age in their homes more successfully.

Community Adaptation

As with home modification, the community environment can be adapted to facilitate aging in place both through retrofitting and new design. Most households with residents aged 65 and older are located in a suburb.[43] Suburbs, however, with their widely spaced residences that are often distant from grocery stores, doctors' offices, and other services and amenities, are ill-suited for seniors, especially those who cannot drive.[44] Ellen Dunham-Jones and June Williamson, authors of *Retrofitting Suburbia*, suggest that suburban spaces can be repurposed to meet the needs of aging residents — for example, a vacant strip mall could become a "medical mall" as a one-stop destination for medical services.[45] Similar adaptations are also appropriate for rural and urban areas.

Community planners envision the design of "lifelong neighborhoods" that are consistent with smart growth principles and that can accommodate residents of all ages by incorporating connectivity, pedestrian access and transit, neighborhood retail and services, and public spaces for social interaction. Planning for lifelong neighborhoods includes flexible zoning ordinances that can expand potential avenues for aging in place such as accessory dwelling units (self-contained living units adjacent to or within a single-family dwelling), cohousing, and multifamily housing and would allow residential and commercial areas to be situated closer together.[46]

Public transit offers a potential solution to seniors' mobility barriers, but traditional transit systems are typically geared toward the needs of commuters. According to an AARP analysis of the 2009 National Household Travel Survey, people over age 65 made only 2.2 percent of their trips by public transit compared with more than 87

percent by car and 8.8 percent by walking.[47] Paratransit services — door-to-door, demand-responsive services required by the Americans with Disabilities Act — could be an alternative to public transit, but an estimated 58 percent of older people do not qualify for ADA paratransit services because they do not have a serious disability.[48] These services are also very expensive; in 2011, the average cost of a one-way paratransit trip was $34.59.[49]

MEND, a nonprofit housing development organization, converted the former Springside School into 32 senior apartments in Burlington Township, New Jersey. Another 43 units will be added to the development, which exemplifies community adaptation to meet the growing demand for senior housing.
Photo courtesy: MEND

When residential and commercial uses are separated and communities lack connectivity, walkability, and adequate public transportation, seniors become dependent on their ability to drive or receive rides from others.[50] Without dependable and affordable transportation options, seniors can have difficulty accessing necessary goods and services and can become socially isolated.[51] A 2004 study found that older Americans who do not drive make 15 percent fewer trips to the doctor, 59 percent fewer trips to shopping and restaurants, and 65 percent fewer trips for social or religious activities than those who do drive.[52] Programs that provide transportation through volunteer drivers or taxi subsidies — or that help seniors continue driving safely for as long as possible — can help older Americans overcome mobility barriers even in communities that are not particularly walkable or well-served by public transit.[53]

“[S]trategies of improving existing homes, of incorporating universally useful features in new homes, of building thoughtful new communities, and of retooling existing neighborhoods must be broadly integrated into our community-building strategies at the local level across the United States,” writes former HUD Secretary Henry Cisneros.[54] All of these interventions, and likely more, may be necessary to meet the diverse needs and increasing demands of an aging population.

Paying To Age in Place

To age in place, seniors must be able to either afford to remain in their current homes, making any necessary aging-related modifications, or choose from affordable residential options in their communities. Wealthier households may have sufficient personal savings and assets to self-finance aging in place. As previously noted, however, many households are financially insecure; for low-income households and even many middle-income households, paying to age in place is a serious challenge. Middle-income households that do not qualify for Medicaid home and community-based care services or subsidized housing support services may not be able to afford to pay for in-home care, home modifications, or Village membership dues to help them stay in their homes or for assisted living or continuing care retirement communities to remain in their communities (see “Community-

Centered Solutions for Aging at Home"). Although numerous government programs support low-income seniors, they do not meet the current demand for services. Communities will need a wider range of affordable housing options to help middle-income households age in place.

For those who may be able to self-finance aging in place, economists Richard K. Green and Gary D. Painter suggest that "the most likely method for allowing elderly homeowners to remain in their homes is to ensure that they have a path to using their home equity to do so."[55] Reverse mortgages allow homeowners to age in place by accessing the equity of their homes as income, either in monthly payments or in a lump sum, before the home is sold. A downside of this approach, which discourages its broader use, is that neither the homes nor their equity can be left to heirs unless they pay the debt in full. Nearly all reverse mortgages are supported by the Federal Housing Administration's (FHA's) Home Equity Conversion Mortgage (HECM) program.[56] Under HECM, FHA insures reverse mortgages, encouraging lenders to offer these loans without concern for the risk that homeowners will outlive the value of their homes.

Bob Harrison, 85, makes himself a snack in his kitchen while sensors mounted on the wall behind him monitor his activity to alert caretakers to emergency situations such as falls. The sensor technology is part of an experimental program at the University of Missouri.
Photo courtesy: Shoshana Herndon

In recent years, however, stagnant or declining home values, changing loan and borrower characteristics, borrowers' inability to keep up with property tax and insurance costs, and increasing numbers of homes left to be sold by FHA rather than by the borrower have caused the HECM program to sustain heavy losses.[57] The Reverse Mortgage Stabilization Act of 2013 aims to put HECM on firmer financial footing, but FHA's new financial assessment criteria may restrict the terms and availability of these mortgage instruments. "The challenge for HUD," says Ohio State University's Stephanie Moulton, "will be to set the threshold for the financial assessment criteria and tax and insurance set-asides in a way that mitigates risk while not unnecessarily excluding homeowners from the program who would have otherwise been able to meet these obligations."[58] Moulton and her colleagues are currently gathering information about HECM borrowers that can help HUD set these new criteria.

Without the ability to draw on home equity, renters have more limited options for self-financing aging in place. High housing cost burdens make residential stability difficult to achieve, and a lack of affordable housing choices may force these seniors to move out of their communities. Cost burdens and affordability issues are most severe for low-income households. Of those renters in the lowest income quartile, 72 percent pay more than 30 percent of their income toward housing and nearly half pay more than 50 percent.[59] In addition, much of the rental housing stock lacks the accessibility features that make residences more aging friendly; only 36.3 percent of renter-occupied units have wheelchair-accessible bathrooms, only 15.5 percent have handrails or grab bars in

bathrooms, and only 6.3 percent have extra-wide doors or hallways.[60] Several HUD programs, such as the Section 202 Supportive Housing for the Elderly program and public housing designated for elderly tenants, provide assistance to these low-income elderly renters (see “HUD Programs Support Aging in Place”). Overall, 37 percent of HUD-assisted households are headed by a person over age 62.[61]

Despite the range of available programs and the considerable number of seniors they serve, HUD assistance is insufficient to support all those in need. Only 35.6 percent of all renter households consisting of low-income seniors with no children receive federal rental assistance.[62] These programs, which are unable to meet current demand, will be further pressed as the older population — and their need for services — grows.

Housing as a Platform for Access to Services and Supports

Successful aging in place depends on access to needed supports and services, both medical and nonmedical. A number of current models connect seniors with services and amenities in their homes and communities, but these may not be sufficient to meet growing demand.

The primary means of connecting seniors to the support and care they need is through informal caregivers — friends, family, and neighbors — with just an estimated 5 percent of older people supported only by paid caregivers.[63] The AARP Public Policy Institute estimates that the economic value of unpaid caregiving reached a staggering $450 billion in 2009.[64] Research shows that informal caregiving allows seniors to delay or avoid institutionalization even as their need for care grows.[65]

Part of a retrofit of the Northgate Mall and its surroundings, Aljoya Thornton in Seattle offers residential options for seniors within a walkable, mixed-use neighborhood with access to public transit.
Photo courtesy: Aljoya Thornton Place, an Era Living retirement community.

Although these findings support the assertion that informal caregiving can help seniors age in place, other research suggests that excessive caregiver stress often leads to admission of a care recipient to a nursing home.[66] Policymakers may be interested in supporting informal caregivers to reduce their stress. Studies show that such support should focus on teaching coping skills to deal with “problem behavior” of the care receiver, and they also indicate that additional supports may need to differentiate between caregivers who are adult children and those who are spouses.[67] Some existing programs, such as the United Hospital Fund’s Transitions in Care – Quality Improvement Collaborative, recognize the critical role of the family caregiver in the transition from institutional to home or community settings and aim to better integrate caregivers into the transition process through needs assessment and education.[68] The stress of caregiving that now falls on many baby boomers may also have ramifications for their own health as they age. One study finds an association between caregiving and

poor health behaviors among caregivers that puts their long-term health at risk.[69] Some studies also suggest that the baby boom cohort will be less likely to have a spouse or adult children to provide informal care and therefore will be more likely to require nursing home care.[70]

Although nearly all seniors receive support from informal caregivers, some choose housing options that include paid caregiving. Continuing care retirement communities and assisted living facilities require seniors to move from their current residence, but they can allow seniors to remain in their communities and enter a housing arrangement that includes medical and support services. These options can offer more independence than a nursing home facility while still providing customized medical and daily living support as needed. In 2010, there were 31,100 such state-regulated residential care facilities nationally with a total of 971,900 beds. Of these facilities, 82 percent were private, for-profit institutions and 38 percent of them were chain affiliated.[71] But with a mean national monthly cost per resident of $3,550 in 2012, assisted living is unaffordable for many seniors.[72] Two alternative models that connect seniors with services in their current homes are naturally occurring retirement community support service programs (NORC SSPs) and Villages. (See “Community-Centered Solutions for Aging at Home” for more on these models for aging in place).

Services such as the Centers for Medicare and Medicaid Services’ (CMS) Home and Community-Based Services and Program of All-Inclusive Care for the Elderly also contribute to aging in place by supporting home- and community-based care and reducing unnecessary institutionalization.[73] As many as 5 percent of Medicare enrollees aged 65 and older who live in long-term care facilities have no functional limitations, suggesting that relatively modest interventions could mean the difference between staying at home and institutionalization.[74] One study finds that states that invest more in community-based services — home-delivered meals in particular — have fewer seniors with few or no functional limitation and little or no cognitive impairment in nursing homes.[75] The national average annual rate for a semiprivate room in a nursing home reached $81,030 in 2012, indicating that states can realize considerable savings by delaying or avoiding institutionalization.[76] In fact, a significant shift in Medicaid spending away from institutional long-term care has already occurred, with spending on home- and community-based care increasing from 13 percent in 1990 to 43 percent in 2009.[77] Federal initiatives including Medicaid waivers, Money Follows the Person, and the Community Living Program have helped states facilitate this shift, often called “rebalancing,” as well as other efforts to divert seniors from nursing homes.[78]

One example of an effort to link housing and health services for seniors aging in place is Vermont’s Support and Services at Home (SASH) program. Cathedral Square Corporation, a Vermont nonprofit that provides affordable housing to seniors, forged SASH as a set of partnerships to use housing as a platform for health and other services. The program supplies a SASH service hub, which includes a service coordinator, nurse, and possibly other staff, for each 100 participants. Care is provided in participants’ homes, and the SASH team also addresses community needs through a Community Healthy Aging Plan. During SASH’s initial one-year pilot phase, participants had fewer hospital admissions, fewer falls, and improved nutrition. The program is funded by a combination of public and private sources.[79]

The widespread recognition that integrating housing and health services is critical for successful aging in place suggests the need for greater coordination of health and housing policy, breaking down the silos that have historically kept them separate.[80] A current study jointly supported by HUD and the U.S. Department of Health and Human Services (HHS) seeks to demonstrate the potential gains of greater coordination in the provision of affordable housing and medical services between the two agencies.[81]

Research and Policy: Looking Ahead

The University of Missouri's experimental in-home sensor system exemplifies the potential of adaptive technology to help people age safely and comfortably in their own homes.
Photo courtesy: Shoshana Herndon

The demographic shift to an older population is imminent, yet we still do not fully understand what this change will mean. Researchers are still uncertain about whether advances in health care and assistive technology will continue to increase life expectancy and quality of life, or whether recent trends such as the obesity epidemic will curtail or reverse these gains. Researchers are also unclear about how the increasing diversity of the aging population will affect its members' needs and preferences considering that racial and ethnic minorities experience a higher prevalence of disabilities, lower incomes and wealth, and greater barriers to services compared with whites.

Most seniors want to age in place, remaining in their homes and communities as they grow older. But as Andrew Scharlach of the University of California at Berkeley says, "We don't really have a good understanding of what are the primary factors that allow people to age in place. And we don't have very good information about the relative effectiveness of the different innovations or initiatives or programs" that have been designed to facilitate aging in place.[82] Academics, practitioners, and other stakeholders have suggested and implemented various interventions, including aging-friendly home modification and design, community adaptation and planning, and a range of methods of connecting seniors with medical services in their homes and communities.

"Theory and evidence support a role for safe and accessible housing and services as a way to maintain maximum health, functioning, and independence in the older population and potentially delay or avoid nursing home placement, which is least preferred by older people and very costly for public programs," write Spillman, Biess, and MacDonald.[83] A handful of empirical studies find evidence of improved health outcomes, enhanced productive engagement, and public cost-savings attributable to various interventions that encourage aging in place.[84] "Where you have evidence," says Stone, "is in some specific models for specific problems, but there is nothing that is fully integrated."[85] Spillman et al. concur that "[m]ore research is needed to confirm and quantify the costs and benefits of public policies to improve access to affordable and accessible housing and services."[86]

Ongoing evaluation of existing initiatives and new programs is necessary and is already underway. Aging in place has become a "focal concept in the scholarly field of gerontology," numerous academic institutes and think tanks are devoting attention to aging issues, and — in another sign of the issue's salience — three of the five recipients of MacArthur Foundation How Housing Matters grants in 2012 are conducting studies related to the housing of older adults.[87] For its part, HUD is currently evaluating Vermont's SASH program, the abovementioned HUD and HHS effort to coordinate HUD and CMS data, and the Seniors and Services

Demonstration project, which evaluates the effectiveness of models for connecting seniors in subsidized housing with supportive services. HUD's Office of Policy Development and Research has also identified evaluating the demand for and supply of affordable housing with supportive services as a critical topic in its *Research Roadmap*.[88]

Given the demographic dynamics of population aging, research and evaluation will have to continue alongside innovation and practice in the provision of age-appropriate housing and supportive services. More rigorous research will be needed to identify the most beneficial and cost-effective programs to facilitate aging in place. If successful, such initiatives will enable seniors to remain in their homes and communities, use housing as a platform for health and other services, improve health and overall quality of life, and reduce the public cost of long-term care.

Related Information:

HUD Programs Support Aging in Place

Definitions of Terms

1. Teresa A. Keenan. 2010. "Home and Community Preferences of the 45+ Population," AARP Public Policy Institute, 4, 8. "AARP is a nonprofit, nonpartisan organization that helps people 50 and older improve the quality of their lives."
2. Barbara Lipman, Jeffrey Lubell, and Emily Salomon. 2012. "Housing an Aging Population: Are We Prepared?" Center for Housing Policy, 1.
3. Adele M. Hayutin, Miranda Dietz, and Lillian Mitchell. 2010. *New Realities of an Older America*, Stanford Center on Longevity, 4–5.
4. John W. Rowe. 2010. "Successful Societal Adaptation to the Aging of America," *Public Policy & Aging Report* 21:4, 11; Hayutin, *New Realities*, 11.
5. U.S. Census Bureau. "Table 10. Projected Life Expectancy at Birth by Sex, Race, and Hispanic Origin for the United States: 2015 to 2060" ; Adele M. Hayutin. 2012. "Changing Demographic Realities,"in *Independent for Life: Homes and Neighborhoods for an Aging America*, ed. Henry Cisneros, Margaret Dyer-Chamberlain, and Jane Hickie. Austin: University of Texas Press, 36.
6. National Research Council. 2012. *Aging and the Macroeconomy: Long-term Implications of an Older Population*. Washington, DC: National Academies Press, 35.
7. S. Jay Olshansky, Douglas J. Passaro, Ronald C. Hershow, Jennifer Layden, Bruce A. Carnes, Jacob Brody, Leonard Hayflick, Robert N. Butler, David B. Allison, and David S. Ludwig. 2005. "A Potential Decline in Life Expectancy in the United States in the 21st Century," *New England Journal of Medicine* 352:11, 1140.
8. Cisneros. 2012. "New Visions for Aging in Place,"in *Independent for Life*, 8–9.
9. Eileen M. Crimmins and Hiram Beltrán-Sánchez. 2010. "Mortality and Morbidity Trends: Is There Compression of Morbidity?" *Journal of Gerontology: Social Sciences* 66B:1, 75–86; Kenneth G. Manton, XiLiang Gu, and Gene R. Lowrimore. 2008. "Cohort Changes in Active Life Expectancy in the U.S. Elderly Population," *Journal of Gerontology* 63B:5, S269–S281; National Research Council, 71–3.
10. Beth J. Soldo, Olivia S. Mitchell, Rania Tfaily, and John F. McCabe. 2006. "Cross-Cohort Differences in Health on the Verge of Retirement," National Bureau of Economic Research, 17; Amanda Lehning, Andrew Scharlach, and Jennifer Price Wolf. 2012. "An Emerging Typology of Community Aging Initiatives," *Journal of Community Practice* 20:3, 294.

11. Sandra L. Reynolds, Yasuhiko Saito, and Eileen M. Crimmins. 2005. “The Impact of Obesity on Active Life Expectancy in Older American Men and Women,” *The Gerontologist* 45:4, 438–44.
12. Hayutin, *New Realities*, 5.
13. Interview with Robyn Stone, 8 August 2013.
14. Julie Chin Hansen and Andrew Scharlach. 2012. “Community Services,”in *Independent for Life*, 73; Dorothy D. Dunlop, Jing Song, Larry M. Manheim, Martha L. Daviglus, and Rowland W. Chang. 2007. “Racial/Ethnic Differences in the Development of Disability Among Older Adults, ” *American Journal of Public Health* 97:12, 2209; Fernando Torres-Gil and Brian Hofland. 2012. “Vulnerable Populations,”in *Independent for Life*, 230.
15. Tatjana Meschede, Thomas M. Shapiro, Laura Sullivan, and Jennifer Wheary. 2010. “Severe Financial Insecurity Among African-American and Latino Seniors,” Institute on Assets and Social Policy, 1.
16. Alicia H. Munnell, Anthony Webb, and Francesca Golub-Sass. 2012. “The National Retirement Risk Index: An Update,” Center for Retirement Research at Boston College, 1.
17. Richard K. Green and Gary D. Painter. 2012. “Housing Finance” in *Independent for Life*, 233.
18. Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, U.S. Census Bureau. 2012. Current Population Reports, P60-243, *Income Poverty, and Health Insurance Coverage in the United States: 2011*, 6.
19. Juliette Cubanski, Anthony Damico, Zachary Levinson, Jennifer Huang, and Tricia Neuman. 2012. “Health Care on a Budget: The Financial Burden of Health Spending by Medicare Households,” Kaiser Family Foundation, 2.
20. Rodney Harrell and Ari Houser. 2011. “State Housing Profiles: Housing Conditions and Affordability for the Older Population,” AARP Public Policy Institute, 516.
21. Kathleen Short. 2012. “The Research Supplemental Poverty Measure: 2011,” U.S. Census Bureau, 6.
22. Anthony Downs. 2012. “Future Social and Economic Changes,”in *Independent for Life*, 46.
23. Ibid., 45–50; Hayutin, *New Realities*, 18.
24. Vernon K. Smith, Kathleen Gifford, and Eileen Ellis. 2012. “Medicaid Today: Preparing for Tomorrow: A Look at State Medicaid Program Spending, Enrollment and Policy Trends,” Kaiser Commission on Medicaid and the Uninsured, 45.
25. David Rousseau, Jamie Firth, and Anne Jankiewicz. 2013. “A Short Look at Long-Term Care for Seniors,” *JAMA: Journal of the American Medical Association* 310:8, 786.
26. H. Stephen Kaye, Charlene Harrington, and Mitchell P. LaPlante. 2010. “Long-Term Care: Who Gets it, Who Provides it, and How Much?” *Health Affairs* 29:1, 11.
27. Federal Interagency Forum on Aging-Related Statistics. 2012. *Older Americans 2012: Key Indicators of Well-Being*, 60.
28. Interview with Robyn Stone.
29. Federal Interagency Forum on Aging-Related Statistics, 60–1.
30. Andrew Kochera, Audrey Straight, and Thomas Guterbock. 2005. “Beyond 50.05: A Report to the Nation on Livable Communities: Creating Environments for Successful Aging,” Washington, DC: AARP Public Policy Institute, 8–9.
31. Keith Wardrip. 2010. “Strategies to Meet the Housing Needs of Older Adults,” *Insight on the Issues* 38, 1.
32. Interview with Jon Pynoos, 8 August 2013.
33. Ada-Helen Bayer and Leon Harper. 2000. “Fixing to Stay,” AARP, 31.
34. Marilyn J. Rantz, Marjorie Skubic, Steven Miller, Colleen Galambos, Greg Alexander, James Keller, Mihail Popescu. 2013. “Sensor Technology to Support Aging in Place,” *Journal of the American Medical Directors Association* 14, 386.
35. See chart in Cisneros, 17.

36. Lipman, Lubell, and Salomon, 4; Stephen M. Golant. 2008. “Commentary: Irrational Exuberance for the Aging in Place of Vulnerable Low-Income Older Homeowners,” *Journal of Aging & Social Policy* 20:4, 379.
37. Wardrip, 3–4.
38. Jon Pynoos, Rachel Caraviello, and Caroline Cicero. 2009. “Lifelong Housing: The Anchor in Aging-Friendly Communities,” *Generations* 33:2, 26-32.
39. Jeanne Hayes. 2010. “Federal, State, and Town Visitability Laws and Initiatives,” Office of Legislative Research.
40. Green and Painter, 235.
41. Esther Greenhouse. 2012. “The Home Environment and Aging,”in *Independent for Life*, 94; National Resource Center on Supportive Housing and Home Modification, “Executive Certificate in Home Modification Program.”
42. Interview with Jon Pynoos.
43. Lipman, Lubell, and Salomon, 14.
44. Ellen Dunham-Jones and June Williamson, “Retrofitting Suburbs,” *Independent for Life*, 179.
45. Ibid.; Dunham-Jones and Williamson. 2011. *Retrofitting Suburbia: Urban Design Solutions for Redesigning Suburbs*, Hoboken, NJ: John Wiley & Sons.
46. Plater-Zyberk and Ball. 2012. “Longevity and Urbanism,”*Independent for Life*, 198–208.
47. Jana Lynott and Carlos Figeiredo. 2011. “How the Travel Patterns of Older Adults Are Changing,” AARP Public Policy Institute, 3–4.
48. Sandra Rosenbloom. 2009. “Meeting Transportation Needs in an Aging-Friendly Community,” *Generations* 33:2, 33–5.
49. Sandra Rosenbloom. 2013. “Roadblocks Ahead for Seniors Who Don’t Drive,” *Innovation in Infrastructure*, 1.
50. Rosenbloom 2009, 40.
51. Kevin DeGood. 2011. “Aging in Place, Stuck without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation,” Transportation for America, 3.
52. Linda Bailey. 2004. “Aging Americans: Stranded Without Options,” Surface Transportation Policy Project, 1.
53. Rosenbloom 2009, 37–9.
54. Cisneros, 17.
55. Green and Painter, 240.
56. Consumer Financial Protection Bureau. 2012. “Reverse Mortgages: Report to Congress,” 16.
57. Ibid., 5–10; “HUD Announces Additional Measures to Manage Risk in FHA’s Reverse Mortgage Program,” 3 September 2013 press release.
58. Stephanie Moulton, email correspondence, 9 August 2013.
59. Harrell and Houser, 522.
60. U.S. Census Bureau. 2011. “National American Housing Survey for the United States: Table S-02-RO.”
61. Gretchen Locke, Ken Lam, Meghan Henry, Scott Brown. 2011. “End of Participation in Assisted Housing: What Can We Learn about Aging in Place?” Abt Associates and U.S. Department of Housing and Urban Development, iii.
62. Barry L. Steffen, Shawn Bucholtz, Marge Martin, David A. Vandenbroucke, and Yunn-Gann David Yao. 2013. *Worst Case Housing Needs 2011*, U.S. Department of Housing and Urban Development, 43.
63. Hansen and Scharlach, 77.
64. Lynn Feinberg, Susan C. Reinhard, Ari Houser, and Rita Choula. 2011. “Valuing the Invaluable: 2011 Update, the Growing Contributions and Costs of Family Caregiving,” *Insight on the Issues* 51, 1.

65. Anthony T. Lo Sasso and Richard W. Johnson. 2002. “Does Informal Care from Adult Children Reduce Nursing Home Admissions for the Elderly?” *Inquiry* 39:3, 279.
66. Brenda C. Spillman and Sharon K. Long. 2007. “Does High Caregiver Stress Lead to Nursing Home Entry?” U.S. Department of Health and Human Services, vi.
67. Marie Y. Savundranayagam, Rhonda J. V. Montgomery, and Karl Kosloski. 2010. “A Dimensional Analysis of Caregiver Burden Among Spouses and Adult Children,” *The Gerontologist* 51:3, 329.
68. Carol Levine, Deborah E. Halper, Jennifer L. Rutberg, and David A. Gould. 2013. “Engaging Family Caregivers as Partners in Transitions,” United Hospital Fund, vi–vii.
69. Geoffrey J. Hoffman, Jihey Lee, and Carolyn A. Mendez Luck. 2012. “Health Behaviors Among Baby Boomer Informal Caregivers,” *The Gerontologist* 52:2, 229.
70. Lindsay H. Ryan, Jacqui Smith, Toni C. Antonucci, and James S. Jackson. 2012. “Cohort Differences in the Availability of Informal Caregivers: Are the Boomers at Risk?” *The Gerontologist* 52:2, 185, 187.
71. Eunice Park-Lee, Christine Caffrey, Manisha Sengupta, Abigail Moss, Emily Rosenoff, and Lauren Harris Kojetin. 2011. “Residential Care Facilities: A Key Sector in the Spectrum of Long-term Care Providers in the United States,” *NCHS Data Brief* 78, 1–2.
72. MetLife Mature Market Institute. 2012. *Market Survey of Long-Term Care Costs*, 4.
73. Larry Polivka and Helen Zayac. 2008. “The Aging Network and Managed Long-Term Care,” *The Gerontologist* 48:5, 564.
74. Federal Interagency Forum on Aging-Related Statistics, 61.
75. Kali S.Thomas and Vincent Mor. 2013. “The Relationship between Older Americans Act Title III State Expenditures and Prevalence of Low-Care Nursing Home Residents,” *Health Services Research* 48:3, 1224.
76. MetLife Mature Market Institute, 4.
77. Smith et al., “Medicaid Today,”14.
78. Susan C. Reinhard. 2010. “Diversion, Transition Programs Target Nursing Homes’ Status Quo,” *Health Affairs* 29:1, 47.
79. Center for Housing Policy. 2011. “Meeting the Health Care Needs of Aging Residents of Affordable Multifamily Housing: Case Study Cathedral Square, Vermont.”
80. Kathryn Lawler. 2001. “Aging in Place: Coordinating Housing and Health Care Provision for America’s Growing Elderly Population, ”Joint Center for Housing Studies of Harvard University, 15–9.
81. Lewin Group. 2010. *Design of a Demonstration of Coordinated Housing, Health and Long-Term Care Services and Supports for Low-Income Older Adults*, U.S. Department of Health and Human Services.
82. Interview with Andrew Scharlach, 16 August 2013.
83. Brenda C. Spillman, Jennifer Biess, and Graham MacDonald. 2012. “Housing as a Platform for Improving Outcomes for Older Renters,” What Works Collaborative, Urban Institute, 17.
84. Sarah L. Szanton, Roland J. Thorpe, Cynthia Boyd et al. 2011. “Community Aging in Place, Advancing Better Living for Elders: A Bio-Behavioral-Environmental Intervention to Improve Function and Health-Related Quality of Life in Disabled Older Adults,” *Journal Of The American Geriatrics Society* 59:12, 2314–20; Ernest Gonzales and Nancy Morrow-Howell. 2009. “Productive Engagement in Aging-Friendly Communities,”*Generations – Journal of the American Society on Aging* 33:2, 51–8. Louise A. Meret-Hanke. 2011. “Effects of the Program of All-Inclusive Care for the Elderly on Hospital Use," *The Gerontologist* 51:6, 774–85.
85. Interview with Robyn Stone.
86. Spillman, Biess, and MacDonald, 17; Stephen M. Golant, Pamela Parsons, and Peter A. Boling. 2010. “Assessing the Quality of Care Found in Affordable Clustered Housing-Care Arrangements: Key to Informing Public Policy,” *Cityscape* 12:2, 5–28.

87. Sarinnapha Vasunilashorn, Bernard A. Steinman, Phoebe S. Liebig, and Jon Pynoos. 2012. “Aging in Place: Evolution of a Research Topic Whose Time Has Come, ”*Journal of Aging Research*, 6; See, for example, the Center for Policy Research on Aging at UCLA, the Stanford Center on Longevity, and the RAND Center for the Study of Aging; “MacArthur Awards $2.7 Million to Support Research on How Housing Matters,” MacArthur Foundation, 13 March 2012 press release.
88. U.S. Department of Housing and Urban Development, Office of Policy Development and Research. 2013. *HUD Research Roadmap: FY 2014-FY 2018*, 73–4.

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